Report accompanying the estimate

~~Name of the work:-~~ ~~"Providing and laying sanitary pipeline in WARD NO 17, J P Park Ward no 17 of BBMP under Yeshwanthapura service station in NE1 sub division under DC works of BBMP~~

Name of the work :- UGD works in muthyalanagara & Gokula 1st ward No17, JP park.

At present, there is no sanitary pipeline laid in many roads of JP park ward no 17 of BBMP were laid many years back. Due to rapid developments in the recent years the existing sanitary pipeline are unable to take the sewage load generated in this area. Some of the pipeline are damaged by over growth of tree roots and also due to damage by rodents. Due to all this the sanitary pipeline is getting blocked frequently. There are lot of complaints regarding frequent blockages of the sanitary pipeline from the local residents.

In this regard, the local Corporator Smt. Mamtha K B Vasudev of BBMP ward no 17, JP Park, has taken lot of interest and has requested this office to submit an estimate in this regard and has assured to transfer the required amount from BBMP to BWSSB.

In view of the above, an estimate is prepared based on BWSSB SR 2017-18. with the following provisions:-

1 Cutting concrete / asphalt, EWE in hard soil

3 Providing and laying 300 mm dia RCC pipes

4 Construction of RCC manholes

5 Refilling of pipeline trenches with available approved earth

6 Providing and laying of wet mix macadam and Disposal of surplus earth

All the above mentioned provisions are absolutely essential towards completion of the said work. Lumpsum provisions are made towards Third party inspection charges at 0.60 % and Establishment Tools and Plant charges for BBMP works at 5%.

The total cost of the estimate with all the above provisions is Rs 5,00,000.00 The estimate may kindly be sanctioned under the head "DC works of BBMP" for the year 2018-19 and forwarded to EE- BBMP for deposition of funds with BWSSB to take up the work.

Early kind approval is requested.

"Carder Signed"

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ಯಶವಂತಪುರ ಉಪ ವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

K.V.

AEENE-1

Assistant Executive Engineer
No.1, Water Supply and Sanitary
Sub-Division (NE), 19th Cross
Malleswaram, Bangalore-560 055

ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಪೀಣ್ಯ ಸಹಾಯಕ ಮತ್ತು ಪಾರ್ಕ್ ರೇಸ್‌ಕೋರ್ಸ್ ವಿಭಾಗ(ಈಶಾನ್ಯ)
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NAME OF WORK : UGD WORKS IN MUTHYALANAGARA AND GORULA IN WARD NO:17 JP Park

~~Work: of Providing and laying 230 mm dia CSW pipeline with rubber gasket in valves locations in ward no 17, JP Park under Yeshwanthapura service station coming under HE-1Sub-Division.~~

From 6th main to 7th main Muthyalanagar

Detailed Estimate

Sl no	Specification	Unit	No	L	B	D	Qty	Rate	Amount
1	Cutting road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading danger lighting etc.., in the following classification. Cutting Asphalt road (SR 2017-18, P -9 1-4-2)							P56 I 16.20	
	MH 1 to MH 2	Cum	1	28.00	0.80	0.10	2.24		
	MH 2 to MH 3		1	30.00	0.80	0.10	2.40		
	MH 3 to MH 4		1	30.00	0.80	0.10	2.40		
	MH 4 to MH 5		1	46.00	0.80	0.10	3.68		
	MH 5 to MH 6		1	32.00	0.80	0.10	2.56		
	MH 6 to MH 7		1	31.00	0.80	0.10	2.48		
	24th cross,Muthyala nagar								
	MH 8 to MH 9		1	30.00	0.80	0.10	2.40		
	MH 9 to MH 10		1	21.00	0.80	0.10	1.68		
	MH 10 to MH 11		1	38.00	0.80	0.10	3.04		
	MH 11 to MH 12		1	37.00	0.80	0.10	2.96		
	1st A cross Muthyala nagar								
	MH 13 to MH 14		1	16.00	0.80	0.10	1.28		
	MH 14 to MH 15		1	31.00	0.80	0.10	2.48		
	N=MH 15 to MH 16		1	30.00	0.80	0.10	2.40		
	MH 16 to MH 17		1	30.00	0.80	0.10	2.40		
	MH 17 to MH 18		1	30.00	0.80	0.10	2.40		
	MH 18 to MH 19		1	30.00	0.80	0.10	2.40		
	Total						**39.20**		
	Deductions for Manholes		16	2.18	0.8	0.10	2.79	✓	
	Net qty						**36.41**	894	32550.00
2	Earthwork excavation for pipeline trenches (except building works) including depositing on bank up to a lead of 30 meters including danger lighting and using sight rails and boning rods including shoring, strutting bailing out water at every 100 meters wherever necessary as directed in the following strata. In all soils mixed with boulders of 30 cms size upto and exclusive of disintegrated rock. (SR 2017-18, P-6, 1-1.a)							P51 I 1.1	
	0.00 m to 2.00 m depth	Cum							
	MH 1 to MH 2		1	28.00	0.80	1.20	26.88		
	MH 2 to MH 3		1	30.00	0.80	1.20	28.80		
	MH 3 to MH 4		1	30.00	0.80	1.80	43.20		
	MH 4 to MH 5		1	46.00	0.80	1.85	68.08		
	MH 5 to MH 6		1	32.00	0.80	1.25	32.00		

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Sl no	Specification	Unit	No	L	B	D	Qty	Rate	Amount
	MH 6 to MH 7		1	31.00	0.80	1.20	29.76		
	24th cross.Muthyala nagar								
	MH 8 to MH 9		1	30.00	0.80	2.00	48.00		
	MH 9 to MH 10		1	21.00	0.80	2.00	33.60		
	MH 10 to MH 11		1	38.00	0.80	1.90	57.76		
	MH 11 to MH 12		1	37.00	0.80	1.90	56.24		
	1st A cross Muthyala nagar								
	MH 13 to MH 14		1	16.00	0.80	1.65	21.12		
	MH 14 to MH 15		1	31.00	0.80	1.60	[illegible]		
	N=MH 15 to MH 16		1	30.00	0.80	1.60	[illegible]		
	MH 16 to MH 17		1	30.00	0.80	1.60	[illegible]		
	MH 17 to MH 18		1	30.00	0.80	1.60	36.80		
	MH 18 to MH 19		1	30.00	0.80	1.55	[illegible]		
	Total						65[illegible]		
	Deductions for Manholes		16	2.18	1.5	1.40	[illegible]		
	Asphalt road cutting						34.[illegible]		
	Total deductions						100.[illegible]	✓	
	Net qty						527.[illegible]	167	88153.00
3	Supplying lowering laying, jointing, testing and commissioning of [illegible]ewing diameters glazed stone ware pipes, conforming to IS 651:1992, ([illegible] 5th revision) in all respects jointing with EPDM rubber rings (seals according to EN 681 & ASPM 425) The rubber seals joints pipe will have groves in interior of socket and exterior of the spigot. The rubber gasket shall be prefixed [illegible] factory by the manufacturer rigidly with approved glue to have leak proof including conveying of pipe to work site and rolling and lowering into trench, laying true to line, level and perfect linking at joints testing and commissioning including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of GSW pipes and specials with rubber gaskets conforming to EN 681 and ASTM C-425 including cleaning the socket and spygot with soap solution and applyign talcum powder for [illegible]eling								
	crack, then applying glue and before inserting of rubber gasket [illegible]cking and fixing in perfect condition including the cost of soap solution, talcum powder and glue etc. and giving necessary hydraulic test to the required pressure of water head with all lead and lifts including costing of jointing [illegible]erials and all necessary survey works for laying of sewers etc., and disposal of [illegible]ris as directed etc., complete. (Contractor will make his own arrange[illegible]ts for procuring for testing) with Rubber ring gasket joints								
	230 mm dia								
	MH 1 to MH 2		1	28.00			[illegible]		

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I 4.4

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Sl no	Specification	Unit	No	L	B	D	Qty	Rate	Amount
	MH 2 to MH 3		1	30.00			30.00		
	MH 3 to MH 4		1	30.00			30.00		
	MH 4 to MH 5		1	46.00			46.00		
	MH 5 to MH 6		1	32.00			32.00		
	MH 6 to MH 7		1	31.00			31.00		
	24th cross,Muthyala nagar								
	MH 8 to MH 9		1	30.00			30.00		
	MH 9 to MH 10		1	21.00			21.00		
	MH 10 to MH 11		1	38.00			38.00		
	MH 11 to MH 12		1	37.00			37.00		
	1st A cross Muthyala nagar								
	MH 13 to MH 14		1	16.00			16.00		
	MH 14 to MH 15		1	31.00			31.00		
	N=MH 15 to MH 16		1	30.00			30.00		
	MH 16 to MH 17		1	30.00			30.00		
	MH 17 to MH 18		1	30.00			30.00		
	MH 18 to MH 19		1	30.00			30.00		
	Total						**490.00**		
	Deductions for Manholes		16	1.2			19.20		
	Net qty						**470.80**	501	235870.80

4	Providing and constructing "wire cut brick manhole chambers" using sulphate resistant cement, conical in shape at top with C.C. 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15 m alround the chamber and brick masonry in C.M. 1:4 plaster with wire cut bricks of approved quality and CM plaster 1:3 proportion 12 mm thick inside and outside except for the conical surface outside where the thickness of plaster shall be 20 rr.m thick, with 1:6 slope in the concrete towards the central drain, finished smooth and fixing of pipes in CC 1:2:4 graded metal of 20 mm and down size including conveying to work spot supplying & fixing SFRC manhole frame and cover confirming to IS:12592 with latest amendments in CC 1:2:4, supplying and fixing of minimum 3 mm thick encapsulated plastic footsteps (as per IS 10910) on 12 mm dia, Grade Fe-415 steel bar (as per IS 1786) staggered at 30 cms apart as detailed in Technical Specifications and as directed, watering, curring, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, dewatering, engraving manhole No.with flow direction on the inner conical surface etc., as per the drawing with wire cut bricks as per technical specifications for the following diameters & depths including earth work excavation in all types of soils								
	1.20 m depth - MH2. MH3		2				2	20697.00	41394.00

P168 I 101.1

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Sl no	Specification	Unit	No	L	B	D	Qty	Rate	Amount
	1.50 m depth - MH 1, MH 4, MH 5, MH 6, Mh 7, MH8, MH 11, MH 12, MH 13 MH 19, MH 20		11	P 168 I 101.6			11	24253.00	266783.00
	1.60 m depth - MH 14, MH 15, MH 16, MH 17, MH 18		5	I 101.7			5	25734.00	128670.00
	1.90 m depth - MH 10		1	I 101.10			1	29465.00	29465.00
	2.40 m depth - MH 9		1				1	36461.40	36461.00
	I 101.11 & I 101.12								
5	Providing laying spreading compacting graded stones aggregate to wet mix macadam specifications including pre mixing the materials with water at OMC in mechanical mix plant carriage of mixed material by tipper to site laying in uniform layer with paver in sub base / base course on well prepared surface and compacting them with vibratory roller to achieve the desired density complete as per specification MORTH specification no 406								
	Qty same as in item 1 - Asphalt cutting	Cum					36.41	1668	60731.00
		PWD SR							
6	Refilling of available earth around pipelines, in layers not exceeding 20 cms in depth, compacting each deposited layer by ramming after watering all lead and lift including cost of all labour including consolidation by mechanical means approved by engineer incharge, when earth is at suitable moisture content with desired field density upto 95% maximum dry density (modified heavy proctor test) for restoration of roads without settlement including HOM of machineries,complete.(The contractor shall take care while consolidating the earth, so that, pipes laid are not damaged due to mechanical compaction and shall restore the damaged pipes at his own cost, in case of damage). SR 2017-18 P-9,1-2								
	Earth work qty	Cum					527.86		
	Deductions pie volume - 3.14 x 0.23 x 0.23 x 0.25 x 499.6						19.57		
	Qty refilled						508.29	103	52354.00
7	Disposing off the excavated earth of all types and distance mentioned below including loading, unloading with all lifts labour , HOM machineries etc complete **5.00 Km** BWSSB SR 14-15 p 1017								
	Deductions pie volume - 3.14 x 0.23 x 0.23 x 0.25 x 499.6						19.57		
	Earth replaced by Wet mix macadam						36.41		

P56 I 14.1

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Sl no	Specification / Total	Unit	No	L	B	D	Qty	Rate	Amount
	Near swimming pool						**55.98**	193.00	10804.00
1	Cutting road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading danger lighting etc.., in the following classification. Cutting Asphalt road (SR 2017-18, P -9 1-4-2)								
	Cross road near swimming pool								
	MH 1 to MH 2	Cum	1	40.00	0.80	0.15	4.80		
	MH 2 to MH 3		1	26.00	0.80	0.15	3.12		
	MH 3 to MH 4		1	52.00	0.80	0.15	6.24		
	MH 4 to MH 5		1	38.00	0.80	0.15	4.56		
	Swimming pool road								
	MH 6 to MH 7		1	30.00	0.80	0.15	3.60		
	MH 7 to MH 8		1	33.00	0.80	0.15	3.96		
	MH 7 to MH 9		1	30.00	0.80	0.15	3.60		
	MH 9 to MH 10		1	40.00	0.80	0.15	4.80		
	Total						**34.68**		
	Deductions for Manholes		8	2.18	0.8	0.15	2.09		
	Net qty						**32.59**	894	29133.00
2	Earthwork excavation for pipeline trenches (except building works) including depositing on bank up to a lead of 30 meters including danger lighting and using sight rails and boning rods including shoring, strutting bailing out water at every 100 meters wherever necessary as directed in the following strata. In all soils mixed with boulders of 30 cms size upto and exclusive of disintegrated rock. (SR 2017-18, P-6, 1-1.a)								
	0.00 m to 2.00 m depth	Cum							
	MH 1 to MH 2		1	40.00	0.80	1.20	38.40		
	MH 2 to MH 3		1	30.00	0.80	1.20	28.80		
	MH 3 to MH 4		1	30.00	0.80	1.20	28.80		
	MH 4 to MH 5		1	38.00	0.80	1.20	36.48		
	Swimming pool road								
	MH 6 to MH 7		1	30.00	0.80	0.15	3.60		
	MH 7 to MH 8		1	33.00	0.80	0.15	3.96		
	MH 7 to MH 9		1	30.00	0.80	0.15	3.60		
	MH 9 to MH 10		1	40.00	0.80	0.15	4.80		
	Total						**148.44**		
	Deductions for Manholes		8	2.18	1.5	1.20	31.39		
	Asphalt road cutting						32.59		
	Total deductions						63.98		
	Net qty						**84.46**	167	14105.00

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Sl no	Specification	Unit	No	L	B	D	Qty	Rate	Amount
3	Supplying lowering laying, jointing, testing and commissioning of following diameters glazed stone ware pipes, conforming to IS 651:1992, (with 5th revision) in all respects jointing with EPDM rubber rings (seals according to EN 681 & ASPM 425) The rubber seals joints pipe will have groves in interior of socket and exterior of the spigot. The rubber gasket shall be prefixed at the factory by the manufacturer rigidly with approved glue to have leak proof joint including conveying of pipe to work site and rolling and lowering into trenches, laying true to line, level and perfect linking at joints testing and commissoning including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of GSW pipes and specials, with rubber gaskets conforming to EN 681 and ASTM C-425 including cleaning the socket and spygot with soap solution and applyign talcum powder for detecting crack, then applying glue and before inserting of rubber gaskets, jacking and fixing in perfect condition including the cost of soap solution, talcum powder and glue etc. and giving necessary hydraulic test to the required pressure ofwater head with all lead and lifts including costing of jointing materials and all necessary survey works for laying of sewers etc., and disposal of debris as directed etc., complete. (Contractor will make his own arrangements for procuring for testing) with Rubber ring gasket joints								
	230 mm dia								
	MH 1 to MH 2		1	40.00			40.00		
	MH 2 to MH 3		1	26.00			26.00		
	MH 3 to MH 4		1	52.00			52.00		
	MH 4 to MH 5		1	38.00			38.00		
	Swimming pool road								
	MH 6 to MH 7		1	30.00			30.00		
	MH 7 to MH 8		1	33.00			33.00		
	MH 7 to MH 9		1	30.00			30.00		
	MH 9 to MH 10		1	40.00			40.00		
	Total						**289.00**		
	Deductions for Manholes		8	1.2			9.60		
	Net qty						**279.40**	501	139979.40
4	Dismanatling the damaged or collapsed manholes of 1.20 mtr dia conical in shape and reconstructing the same with machine made wire cut bricks in CM (1:4 as per design and specification of new manholes 1.20 mtr dia with old frame and cover excluding bed concrete 1:3:6 SR 2017-18, P.78								
	1.00 m depth								
	MH1, MH 5, MH 9, MH 10	No	4				4	12694.00	50776.00
	1.20 m depth								
	MH6, MH 7, MH 8	No	3				3	14365.40	43096.00

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Sl no	Specification	Unit	No	L	B	D	Qty	Rate	Amount
4	Providing and constructing "wire cut brick manhole chambers" using sulphate resistant cement, conical in shape at top with C.C. 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15 m around the chamber and brick masonry in C.M. 1:4 plaster with wire cut bricks of approved quality and CM plaster 1:3 proportion 12 mm thick inside and outside except for the conical surface outside where the thickness of plaster shall be 20 mm thick, with 1:6 slope in the concrete towards the central drain, finished smooth and fixing of pipes in CC 1:2:4 graded metal of 20 mm and down size including conveying to work spot supplying & fixing SFRC manhole frame and cover confirming to IS:12592 with latest amendments in CC 1:2:4, supplying and fixing of minimum 3 mm thick encapsulated plastic footsteps (as per IS 10910) on 12 mm dia, Grade Fe-415 steel bar (as per IS 1786) staggered at 30 cms apart as detailed in Technical Specifications and as directed, watering, curring, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, dewatering, engraving manhole No.with flow direction on the inner conical surface etc., as per the drawing with wire cut bricks as per technical specifications for the following diameters & depths including earth work excavation in all types of soils								
	1.20 m depth			P168 I 10 1.1					
	MH2, MH 3, MH 4, MH6, MH 7, MH 8		6				6	20697.00	124182.00
6	Providing laying spreading compacting graded stones aggregate to wet mix macadam specifications including pre mixing the materials with water at OMC in mechanical mix plant carriage of mixed material by tiooer to site laying in uniform layer with paver in sub base / base course on well prepared surface and compacting them with vibratory roller to achieve the desired density complete as per specification MORTH specification no 406 PWD SR								
	Qty same as in item 1 - Asphalt cutting	Cum					32.59	1668	54355.00
7	Refilling of available earth around pipelines, in layers not exceeding 20 cms in depth, compacting each deposited layer by ramming after watering all lead and lift including cost of all labour including consolidation by mechanical means approved by engineer incharge, when earth is at suitable moisture content with desired field density upto 95% maximum dry density (modified heavy proctor test) for restoration of roads without settlement including HOM of machineries,complete.(The contractor shall take care while consolidating the earth, so that, pipes laid are not damaged due to mechanical compaction and shall restore the damaged pipes at his own cost, in case of damage). SR 2017-18 P-9,1-2 P56 I 14.1								

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Sl no	Specification	Unit	No	L	B	D	Qty	Rate	Amount
	Earth work qty	Cum					84.46		
	Deductions pie volume - 3.14 x 0.3 x 0.3 x 0.25 x 259.40						19.76	P56 I 14.1	
	Qty refilled						64.70	103	6664.10
8	Disposing off the excavated earth of all types and distance mentioned below including loading, unloading with all lifts labour , HOM machineries etc complete **5.00 Km** BWSSB SR 14-15 p 1017								
	Deductions pie volume - 3.14 x 0.3 x 0.3 x 0.25 x 259.40						19.76		
	Earth replaced by Wet mix macadam						32.59	P57 I 20.5	
	Total						**52.34**	193.00	10103.00
	Work of Providing and laying 230 mm dia GSW pipeline with rubber gaskets in B Ramaiah slum								
1	Cutting road surfaces for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the classifications for: **Concrete road**								
	BWSSB SR 17-18 p 581 16.2								
	Inside B Ramaiah slum								
	MH 1 TO MH 2		1	25.00	0.80	0.100	2.00		
	MH 2 to MH 3		1	25.00	0.80	0.100	2.00		
	MH 3 to MH 4		1	29.00	0.80	0.100	2.32		
	MH 4 to MH 5		1	21.00	0.80	0.100	1.68		
	MH 5 to MH 6		1	30.00	0.80	0.100	2.40		
	MH 6 to MH 7		1	25.00	0.80	0.100	2.00		
	MH 2 to MH 7		1	23.00	0.80	0.100	1.84		
	Cross road Ramaiah slum								
	MH 8 to MH 9		1	23.00	0.80	0.100	1.84		
	MH 9 to MH 10		1	23.50	0.80	0.100	1.88		
	MH 10 to MH 11		1	23.00	0.80	0.100	1.84		
	MH 11 to MH 12		1	21.50	0.80	0.100	1.72		
							21.52		
	Deductions for Manholes		11	2.180	0.8	0.100	1.92		
	Net qty						**19.60**	P56 I 16.19 1033	20248.00
2	Cutting road surfaces for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the classifications for: **Asphalt road**								

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Sl no	Specification	Unit	No	L	B	D	Qty	Rate	Amount
	BWSSB SR 17-18 p 58 I 16.2								
	Big road inside B Ramaiah slum								
	MH 13 to MH 14								
	MH 14 to MH 15		1	36.00	0.80	0.100	2.88		
	MH 15 to MH 16		1	30.00	0.80	0.100	2.40		
	MH 16 to MH 17		1	30.00	0.80	0.100	2.40		
			1	30.00	0.80	0.100	2.40		
							10.08		
	Deductions for Manholes		4	2.180	0.8	0.100	0.70		
	Net qty								
							9.38	894	8388.00
3	Earthwork excavation for pipeline trenches (except building works) including depositing on bank up to a lead of 30 meters including danger lighting and using sight rails and boning rods including shoring, strutting bailing out water at every 100 meters wherever necessary as directed in the following strata. In all soils mixed with boulders of 30 cms size upto and exclusive of disintegrated rock. (SR 2017-18, P-6, 1-1.a)								
	Inside B Ramaiah slum								
	MH 1 TO MH 2		1	25.00	0.80	1.50	30.00		
	MH 2 to MH 3		1	25.00	0.80	1.50	30.00		
	MH 3 to MH 4		1	29.00	0.80	1.50	34.80		
	MH 4 to MH 5		1	21.00	0.80	1.35	22.68		
	MH 5 to MH 6		1	30.00	0.80	1.25	30.00		
	MH 6 to MH 7		1	25.00	0.80	1.25	25.00		
	MH 2 to MH 7		1	23.00	0.80	1.75	32.20		
	Cross road Ramaiah slum								
	MH 8 to MH 9		1	23.00	0.80	1.20	22.08		
	MH 9 to MH 10		1	23.50	0.80	1.25	23.50		
	MH 10 to MH 11		1	23.00	0.80	1.30	23.92		
	MH 11 to MH 12		1	21.50	0.80	1.25	21.50		
	Big road inside B Ramaiah slum								
	MH 13 to MH 14		1	36.00	0.80	1.10	31.68		
	MH 14 to MH 15		1	30.00	0.80	1.35	32.40		
	MH 15 to MH 16		1	30.00	0.80	1.40	33.60		
	MH 16 to MH 17		1	30.00	0.80	1.40	33.60		
							426.96		
	Deductions for Manholes		15	2.180	0.8	1.44	37.75		
	Asphalt road cutting						9.38		
	Total deductions						**47.13**		

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